AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (*currently amended*) A method implemented using a data processing system including a processor, a main memory, and a control program residing in the main memory, for planning an arrangement of bricks for the construction of a brick wall made by a dry type of construction method, in which the brick wall is constructed from bricks, bolts, nuts and metal plates and in which the bricks are integrally assembled under pre-stress by tightening forces of the bolts and nuts,

wherein the brick has a planar dimensional proportion which is 1:2 in an aspect ratio, a bolt hole with a diameter smaller than an external diameter of said nut vertically extends through a center of a first square half part of said brick, a hollow section for containing the nut vertically extends through a center of a second square half part of said brick, and said bolt has an overall length for fastening the vertically adjacent two bricks, comprising the steps of:

specifying a grid pattern XY coordinate system forming a number of square grid units, each of the grid units substantially conforming to a planar size of the square half part of said brick, and setting odd number layer tightening grids (α) and even number layer tightening grids (β) alternately in each of X- and Y- directions, using the data processing system;

setting an arbitrary grid unit, to which an end part of the brick wall is allotted, to be a reference grid (γ), using the data processing system;

positioning the brick of the end part of the brick wall on said reference grid for allocating the bricks in the odd number layer so as to match said first square half part to said odd number layer tightening grid, and successively arraying the bricks of the odd number layer from the brick on the reference grid, as well as positioning the brick of the end part of the brick wall on said reference grid for allocating the bricks in the even number layer so as to match said first square half part to said even number layer tightening grid, and successively arraying the bricks of the even number layer from the brick on the reference grid, using the data processing system; and

arraying said metal plates for allocation of the plates on the bricks of said odd number layer so that at least one bolt hole of the plate is positioned on said odd number layer tightening grid, as well as arraying the metal plates for allocation of the plates on the bricks of said even number layer so that at least one bolt hole of the plate is positioned on said even number layer tightening grid, using the data processing system.

2.   (*original*) A method as defined in claim 1, wherein said metal plate has two, three, four or five bolt holes, which are spaced from each other, a distance corresponding to the planar dimension of said square half part.

3.   (*currently amended*) A method as defined in claim 1, wherein said nuts for the bricks of the odd number layer are allotted by the data processing system to the bolt holes of said metal plates located on the odd number layer, and the nuts for the bricks of the even number layer are allotted by the data processing system to the bolt holes of said metal plates located on the even number layer.

4.   (*currently amended*) A method as defined in claim 1, wherein a corner of the brick wall is

allotted to said grid by the data processing system, so that the said reference grid (γ) is

determined.

5.   (*currently amended*) A method as defined in claim 1, wherein quantities of the bricks, the

bolts, the nuts and the metal plates are estimated by the data processing system, based on the

number of grids locating along the brick wall.

6.   (*previously presented*) A brick wall of a building which is constructed in accordance with

the brick allocation and the plate allocation determined by the method as defined in claim 1, so

that said bolts and nuts are contained in said bolt holes and said hollow sections.

7.   (*currently amended*) A ~~brick allocating program for causing a computer to function so as to make~~ computer program product, comprising a computer usable medium having a computer readable program code embodied therein, said computer readable program code adapted to be executed to implement a method implemented using a data processing system including a processor, a main memory, and a control program residing in the main memory, for making a brick layout drawing for construction of a brick wall with respect to the brick wall made by a dry type of construction method, in which the brick walls are constructed from bricks, bolts, nuts and metal plates and in which the bricks are integrally assembled under pre-stress by tightening forces of the bolts and nuts, wherein the computer readable program code causes the computer to function as:

grid coordinate system display means for displaying on a display, a grid pattern XY coordinate system constituted from square grids, each corresponding to the planar size of a square half part of the brick;

brick allocation model production means implemented by the data processing system for producing brick allocation model data of an odd number layer and an even number layer which are adapted for said grids, based on information of a wall structure and an opening on an architectural design drawing inputted to said XY coordinate system;

brick layout drawing data production means implemented by the data processing system for automatically producing brick layout drawing data from said brick allocation model data; and

drawing data output means for outputting said brick layout drawing data as a working drawing for construction.

8.   (*currently amended*) A <u>computer</u> program <u>product</u> as defined in claim 7, ~~causing~~<u>wherein</u> <u>the readable program code further causes</u> the computer to function as means for producing layout drawing data for allocating the bolts, the nuts and the metal plates, which automatically produces the layout drawing data of the bolts, the nuts and the metal plates on the basis of said brick allocation model data.

9.   (*currently amended*) A <u>computer</u> program <u>product</u> as defined in claim 7, wherein said grid coordinate system display means causes the computer to display a plan of said architectural design drawing on the said XY coordinate system.

10.   (*currently amended*) A <u>computer</u> program <u>product</u> as defined in claim 7, ~~causing~~<u>wherein</u> <u>the readable program code further causes</u> the computer to function as material quantities summing means for summing up the quantities of the bricks, the bolts, the nuts and the metal plates on the basis of said brick allocation model data.

11.   (*currently amended*) A <u>computer</u> program <u>product</u> as defined in claim 8, ~~causing~~<u>wherein</u> <u>the readable program code further causes</u> the computer to function as individual revision means for displaying a peculiar portion inconsistent with a rule for automatically producing said brick layout drawing data in said brick layout drawing data production means, and enabling a manual revision or input of the allocation of the bricks, the bolts, the nuts and the metal plates in said peculiar portion.

12.   (*original*) A brick allocating system for making a brick layout drawing for construction of a brick wall with respect to the brick wall made by a dry type of construction method, in which the brick walls are constructed from bricks, bolts, nuts and metal plates and in which the bricks are integrally assembled under pre-stress by tightening forces of the bolts and nuts, comprising:

a display device for displaying a grid pattern XY coordinate system constituted from square grids, each corresponding to the planar size of a square half part of the brick;

an input device for inputting information of a wall structure and an opening on an architectural design drawing, to said XY coordinate system;

a data processing device producing brick allocation model data for an odd number layer and an even number layer, which are adapted for the grids, and automatically producing brick layout drawing data based on said brick allocation model data;

a storage device for storing said brick allocation model data and said brick layout drawing data; and

an output device for outputting said brick layout drawing data as a working drawing for construction.

13.   (*original*) A system as defined in claim 12, wherein said data processing device automatically produces layout drawing data of the bolts, the nuts and the metal plates from said brick allocation model data;

said storage device stores said layout drawing data of the bolts, the nuts and the metal plates; and

said output device outputs said layout drawing data of the bolts, the nuts and the metal plates as a working drawing for construction.

14.   (*previously presented*) A system as defined in claim 12, wherein said data processing device sums up quantities of the bricks, the bolts, the nuts and the metal plates on the basis of said brick allocation model data;

said storage device stores the quantities of the bricks, the bolts, the nuts and the metal plates; and

said output device outputs data of the quantities of the bricks, the bolts, the nuts and the metal plates.

15.   (*previously presented*) A system as defined in claim 12, wherein said data processing device sets odd number layer tightening grids (α) and even number layer tightening grids (β) alternately in each of X- and Y- directions; sets a grid unit on the XY coordinate system to which an end part of the brick wall is allotted, to be a reference grid (γ); successively arrays the bricks of the odd number layer from the brick on the reference grid in such a manner that a first half part of the brick with a bolt hole matches the odd number layer tightening grid; and successively arrays the bricks of the even number layer from the brick on the reference grid in such a manner that said first half part matches the even number layer tightening grid.

16.   (*previously presented*) A system as defined in claim 13, wherein said data processing device arrays the metal plates of the odd number layer so that at least one bolt hole of the plate is positioned on said odd number layer tightening grid, and arrays the metal plates of the even

number layer so that at least one bolt hole of the metal plate is positioned on said even number

layer tightening grid.